

PATENT

Atty. Dkt. No. 113692CON-1

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-41 (Canceled)

Claim 42 (Currently amended) A communication system, comprising:

a mux node including a first lightwave interface device for communication with a head end, said mux node further including a second lightwave interface device for transmitting a plurality of optical signals, wherein at least two of the optical signals include both analog and digital signals, wherein said mux node includes a radio frequency signal compiler that enables frequency division multiplexing of a plurality of upstream signals received from a corresponding plurality of mini fiber nodes, where at least one of said plurality of upstream signals is transmitted directly to at least one of said plurality of mini fiber nodes without being forwarded to said head end; and

a mini fiber node including a third lightwave interface device for receiving said optical signals from said second lightwave interface device of said mux node, said mini fiber node being further configured to communicate analog and digital signals to end user equipment via a wired connection.

Claims 43-48 (Canceled)

Claim 49 (Currently amended) A network node that communicates between a head end and a plurality of mini fiber nodes, comprising:

a first lightwave interface device for communication with a head end;

a second lightwave interface device for transmitting a plurality of optical signals to a respective plurality of mini fiber nodes, wherein each of the plurality of mini fiber nodes being configured to communicate analog and digital signals to end user equipment via a wired connection, wherein at least two of the optical signals include both analog and digital signals; and

a radio frequency signal compiler that enables frequency division multiplexing of a plurality of upstream signals received from a corresponding plurality of mini fiber

PATENT

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nodes, where at least one of said plurality of upstream signals is transmitted directly to at least one of said plurality of mini fiber nodes without being forwarded to said head end.

Claim 50 (Previously presented) A network node that communicates between a head end and a plurality of mini fiber nodes, comprising:

a first lightwave interface device for communication with a head end;

a second lightwave interface device for transmitting a plurality of optical signals to a respective plurality of mini fiber nodes, wherein each of the plurality of mini fiber nodes being configured to communicate analog and digital signals to end user equipment via a wired connection, wherein at least two of the optical signals include both analog and digital signals; and

a mux/demux/router component that is operative to receive electrical signals that have been converted from optical signals received from said head end, demultiplexes the received electrical signals, and forwards separate demultiplexed signals to said second lightwave interface device that transmits said separate demultiplexed signals to designated mini fiber nodes.

Claims 51-66 (Cancelled)